CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/MEW/W.No.14/WMM/Shape.T/2017-18 10.08.2017

TEST REPORT ON FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

* Customer	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore
* Agency	:	**M/s. Mahendra Engineering Works, (Prop. G. Venkatesh),** No. 243, 15th D Cross, 2nd stage, 2nd phase, West of Chord Road, Mahalakshmipuram, Bangalore – 560 086.
* Name of Work	:	Improvements and asphalting to 22nd Cross (Pipeline road) Bhuvaneshwari Nagara 1st Main and 1st A Main road, Brundavana Extn., (from pipeline road) in Bagalagunte Ward No. 14, Dasarahalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/DZ/AEE/TDSD/PR/96/2017-18 Dated: 20.07.2017
* Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS 2386(Part 1) 1963 (RA 2011)
Date of Testing	:	10.08.2017

Sl.No.	Description	Result
1	Flakiness Index	11.85%
2	Elongation Index	13.69%
3	Combined Flakness & Elongation Index	25.54%

*Information is furnished by the Customer/Representative.

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Comments:

→ Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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ಟಿ.ದಾಸರಹಳ್ಳಿ ಉಪ-ವಿಭಾಗ
ದಾಸರಹಳ್ಳಿ, ಬೆಂಗಳೂರು.

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#23/14, 7th Cross, 3rd Stage, 4th Block,
Shakthi Ganapathinagar,
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CIVIL-TECH CONSULTANTS AND ENGINEERS

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T-2377

Job No.: CTCE/BBMP/MEW/W.No.14/CSR-07/393/QB(BM)/2017-18 16.08.2017

TEST REPORT ON DETERMINATION OF BITUMEN CHARACTERISTICS

* Customer	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	:	**M/s. Mahendra Engineering Works,** (Prop. G. Venkatesh), No. 243, 15th D Cross, 2nd stage, 2nd phase, West of Chord Road, Mahalakshmipuram, Bangalore – 560 086.
* Name of work	:	Improvements and asphalting to 22nd Cross (Pipeline road) Bhuvaneshwari Nagara 1st Main and 1st A Main road, Brundavana Extn., (from pipeline road) in Bagalagunte Ward No. 14, Dasarahalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/DZ/AEE/TDSD/PR/96/2017-18 Dated: 20.07.2017
* Sample ID	:	Bitumen
Source/ Location	:	Hot Mix Plant, Bangalore.
Sample Received on	:	14.08.2017
Period of Testing	:	16.08.2017

The results of the tests conducted on the bitumen sample are as follows:

Sl. No	Description	Test Method as per IS	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 °C, 1/10 mm	IS :1203 -1978 (RA-2014)	89	80 to 100
2	Softening point, °C	IS :1205 -1978 (RA-2014)	47	Min. 40
3	Ductility at 27°C, cm	IS :1208 -1978 (RA-2014)	100 >	Min. 75
4	Flash Point, °C	IS :1209 -1978 (RA-2014)	312	Min. 220

* Information is furnished by the Customer/Representative

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VIDYARANI P.K.
Technical Manager

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Job No: CTCE/BBMP/MEW/W.No.14/BM/AIV/2017-18 16.08.2017

TEST REPORT ON IMPACT VALUE OF AGGREGATES

* Customer	: **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	: **M/s. Mahendra Engineering Works, (Prop. G. Venkatesh),** No. 243, 15th D Cross, 2nd stage, 2nd phase, West of Chord Road, Mahalakshmipuram, Bangalore – 560 086.
* Name of Work	: Improvements and asphalting to 22nd Cross (Pipeline road) Bhuvaneshwari Nagara 1st Main and 1st A Main road, Brundavana Extn., (from pipeline road) in Bagalagunte Ward No. 14, Dasarahalli Sub Division, BBMP, Bangalore.
* Reference	: BBMP/DZ/AEE/TDSD/PR/96/2017-18 Dated: 20.07.2017
* Sample ID	: Hot Mix Plant, Bangalore
Technical Reference	: IS : 2386(Part -4)-1963 (RA-2011)
* Type of Mix	: Bituminous Macadam
Date of Testing	: 16.08.2017

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1.	Total weight of aggregate sample filling the cylindrical measure = W_1 g	387	392	
2.	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	89	94	
3.	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	298	298	
4.	Aggregate Impact value = percent fines 100* (W2/W1)%	23.00	23.98	23.49

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Aggregate Impact value for Bituminous Macadam is 30%

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